

Does Development Aid Lead to Economic Freedom?

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For more than 50 years individual countries and international agencies have given aid to third world countries to promote economic development, yet poverty still persists in many recipient nations. In recent years development economists and agencies have increasingly recognized the importance of institutions that support property rights and economic freedom in promoting development. Nevertheless, nations continue to provide aid to less developed countries. This raises two important questions. Does the receipt of aid lead to increases or decreases in economic freedom, and are increases in economic freedom rewarded with more aid or punished with reduced aid?

The failure of aid to directly promote development in impoverished countries is well documented. Boone (1996), Vasquez (1998), Easterly and Levine (2001), and Ovaska (2003) all find that development aid fails to systematically improve growth rates. Easterly (2001) summarizes World Bank aid policies that have failed to promote development. Although aid has generally failed to promote development, Burnside and Dollar (2000) argue that aid can be effective if the correct policy environment is in place. This leads us to examine

¹We thank Scott Beaulier, Christopher Coyne, Bob Lawson, Peter Leeson, Tom Means, Edward Stringham, Robert Subrick, Alex Tabarrok, an anonymous referee, and the participants at the 2005 Association of Private Enterprise conference for helpful comments on earlier drafts. The usual disclaimer applies.

the characteristics of the correct policy environment and whether aid has been directed to countries with it.

Since the development of the indexes of economic freedom in 1995, a substantial body of literature has related economic freedom to growth rates and standards of living. The *Economic Freedom of the World* annual report is the most comprehensive index measuring economic freedom. It looks at 37 distinct pieces of data in five major categories: government size; legal structure and security of property rights; sound money; free international trade; and regulation of credit, labor and business. The index ranks countries back to 1970 over five-year intervals, allowing time series analyses to be conducted. Research by Dawson (1998), Gwartney, Lawson and Holcombe (1999), de Haan and Sturm (2000, 2001), Adkins, Moomaw and Savvides (2002), Pitlik (2002), and Weede and Kampf (2002) all find that increases in economic freedom are positively correlated with increases in economic growth rates. Other research indicates that higher levels of economic freedom in a country also increase growth rates, though some research debates whether this is statistically significant. Berggren (2003) provides a comprehensive summary of the literature on economic freedom.

While much has been written on the relationship of economic freedom to growth rates and standards of living, little has been written on the relationship between aid and economic freedom. Vasquez (1998), Ovaska (2003) and Heckelman and Knack (2005) are exceptions; they examine both economic freedom and aid. Ovaska looks at whether the quality of governance (economic freedom) affects the results of aid, while we look at whether aid affects governance and if governance affects aid flows. Heckelman and Knack (2005) examine whether aid impacts freedom and the effect it had on growth over 10- and 20-year periods (1980-2000). They find aid negatively impacts overall economic freedom. Our study expands on their results by looking at a total time span of 30 years (1970-2000) and by analyzing the impact of aid flows on freedom scores in smaller five- and ten-year time

periods. Our study also differs by examining changes in freedom scores and changes in flows aid from period to period instead of just levels of aid flows. Vasquez (1998) examines what happens to the flow of aid when economic freedom changes. He observed a limited number of both countries and years; we expand on his work by looking at a larger set of countries over a 30-year period.

The paper is organized as follows. The second section examines whether aid flows increase or decrease economic freedom. The third section of this paper then investigates whether good policy (i.e., policies that increase freedom) is rewarded with more aid. The fourth section of the paper concludes.

Has Foreign Aid Influenced Economic Freedom?

P.T. Bauer long contended that intergovernmental aid increases the size and scope of recipient governments, contributes to the politicization of life, negatively impacts economic performance, and is, on balance, an anti-market force (1971, 1978, 1984, 1990).² His long list of anti-market policies to which aid contributes includes expulsion of productive groups, suppression of private trade, restriction of the inflow of foreign capital, confiscation of property, forced collectivization, takeover of foreign enterprises, discouragement of agriculture, support of unviable projects, and import substitution (1990, 46). The economic freedom index accounts for many of the policies Bauer lists. Analyzing measures of aid and economic freedom scores allows us to examine if Bauer's anecdotal evidence characterizes most countries receiving aid

²Similarly, Casella and Eichengreen (1996) argue that aid may retard development if it delays the adoption of policy reforms.

in recent years.³

To examine the relationship between aid and freedom, we averaged annual aid data from the World Bank's *World Development Indicators* over 5-year periods (1970-74, 1975-79, etc.) to create an independent variable. Economic freedom scores from the *Economic Freedom of the World* annual report were our dependent variable. Since a given amount of aid is likely to have a bigger impact on freedom in a small economy than a large economy, we examine how aid as a percent of GNI and as a percent of government expenditure impacts economic freedom.⁴ Although not all countries had complete data sets, the maximum span of the aid data was from 1965 to 2000, and the maximum span for the freedom scores were from 1970 to 2000. The vast majority of data periods calculated contained five individual years of foreign aid data.⁵

We first examined the relationship between the amount of aid given to a country and its level of economic freedom. Figure 1 compares levels of economic freedom in countries receiving and not receiving aid at the end of each five-year period.⁶ We find that countries

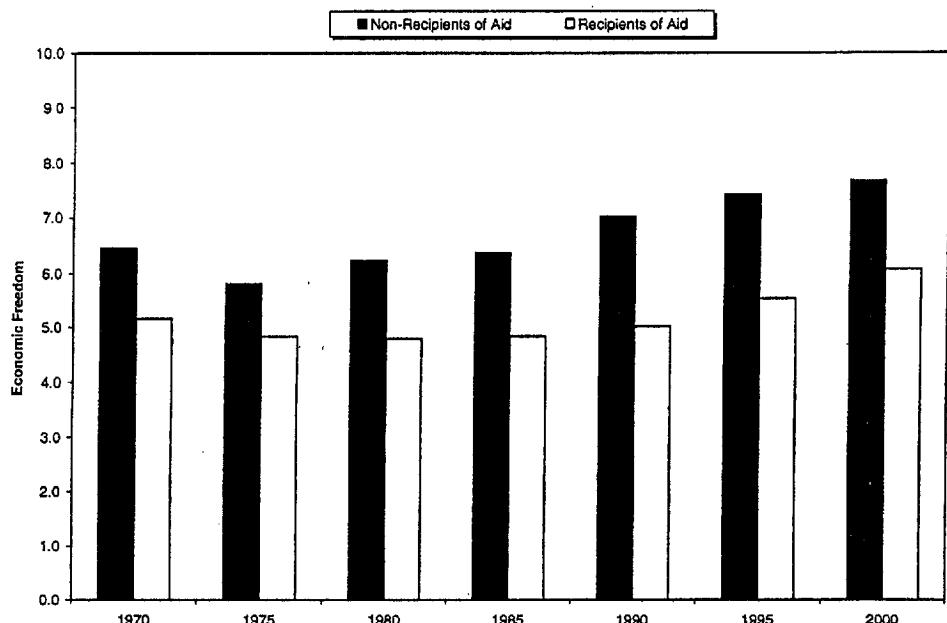
³ Alesina and Weder (2002) find that increases in aid are associated with increases in corruption. Although they are not directly addressing the policy environment as we are, their results are clearly consistent with Bauer's claims.

⁴ Bauer claimed that aid would have little impact on growth since aid would likely be small relative to the size of the economy. Aid could have a much bigger impact on the politicization of economic life, however, because aid as percent of government spending is much greater than aid as percent of GDP.

⁵ In cases in which five years of data were not available, the average of the available years was used.

⁶ Aid flows are averaged over the five years preceding the economic freedom score and year indicated in the figure.

Figure 1. Average Economic Freedom of Recipients vs.
Non-Recipients of Foreign Aid



receiving aid have lower levels of economic freedom than those that do not. Although this could be because aid promotes statism, it could also simply result from the fact that poor countries are more likely to both have low freedom scores and to receive aid.

We next look at only those countries that receive aid to determine if the level of aid they receive as a percent of national income impacts their level of economic freedom. We examine 5-year aid flows and the level of freedom a country had at the conclusion of the 5-year period. We use a simple regression model of:

$$\text{Freedom}_{it} = \alpha + \beta_1 \text{Aid}_{it} + \beta_2 \text{ExCom}_{it} + \beta_3 \text{GNIperCap}_{it} + \epsilon_{it}$$

with the subscripted *t* denoting the final year of both the aid flows and the economic freedom scores. Aid_{it} represents the average foreign aid flow per year to the country over the 5-year span. ExCom_{it} is a dummy variable capturing whether a country is a former communist regime.⁷ GNIperCap_{it} controls for the average GNI per capita for the respective 5- or 10-year period. We included fixed effects for years in all regressions.⁸

We attempted to add data from the World Value Survey, which measures social and political beliefs in nearly 80 countries, so we could have an independent variable to proxy statist vs. classical liberal

⁷ Many countries that desocialized their economies experienced increases in economic freedom, as well as receiving heavy aid support from western economies. This effect is worth separating from other forms of aid procurement. Countries designated as previously communist are: Albania, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovakia, Slovenia, and Ukraine.

⁸ We also ran the regressions without the ExCom and GNI per capita control variables without added results.

ideology.⁹ Presumably, in addition to aid flows, a population's ideology should influence their level of freedom. We tried three different questions from the survey but unfortunately, we were unable to find any significant relationship between value survey score and freedom, nor any significant impact on the other coefficients, so we do not report the results with the World Value Survey data.¹⁰ We think the insignificance of ideology is a reflection of the WVS data failing to adequately capture a nation's dominant ideology, not a rejection of the significance of ideology impacting freedom.

Finally, since aid may impact freedom more slowly than 5-year periods, regressions 2 and 4 repeat the above procedures using 10-year time periods. Regressions 3 and 4 use aid as a percent of government

⁹The World Values Survey has conducted four waves of surveys since 1981; we used data from the third and fourth waves, 1995 and 1999-2001, respectively because the data from the earlier waves were too limited. By using the WVS variable, our regression model was limited to 45 countries over the time period 1990-2000.

¹⁰We used the questions:

- A) On a scale of 1 to 10, with 1 indicating "People" and 10 indicating "The government," where would you place your views on the following statement:
_____ should take more responsibility.
- B) On a scale of 1 to 10, with 1 indicating "Private" and 10 indicating "Government," where would you place your views on the following statement:
_____ ownership of business should be increased.
- C) On a scale of 1 to 10, with 1 indicating "good" and 10 indicating "harmful," where would you place your views on the following statement: Competition is
_____.

expenditure instead of aid as a percent of GNI.¹¹ Table 1 contains our regression results.

We find that the coefficients on aid as a percent of GNI and aid as a percent of government expenditure are negative and significant at the 99% level in all 4 analyses. The economic effects could become significant in the largest cases. Aid is less than 25% of GNI in 97% of our data; the median term is roughly 2.25%. Using regression #1, our model predicts a drop in economic freedom of slightly less than 0.1 due to the median level of aid in our data set, yet suggests a drop in freedom of nearly 0.8 when foreign aid reaches 25% of GNI. This is a nontrivial effect on economic freedom levels. The coefficient for communism is consistently negative, indicating that former communist countries tend to have lower levels of freedom than those never controlled in a command-style economy. Higher levels of per capita income are associated with higher freedom scores though the coefficient is small. Our main finding here is that after controlling for years, whether a country was formerly communist, and per capita income, the amount of aid a country received over both five- and ten-year periods adversely impacted economic freedom just as Bauer predicted.

We next examine how levels of aid impact changes in countries' freedom scores. We look at the change in freedom score over each five-year period from 1975 to 1980, for example, and the level of aid received in that five-year period. Our model is:

$$\Delta\text{Freedom}_{it} = \alpha + \beta_1\text{Aid}_{it} + \beta_2\text{ExCom}_{it} + \beta_3\text{GNIperCap}_{it} + \varepsilon_{it}$$

¹¹We also used figures for total aid and aid per capita. Most signs were the same, although these regressions were less statistically and economically significant. We also added fixed effects for countries (requiring us to drop the former communist dummy) and had similar results, though less significant.

Table 1. Regression Results for the Effects of Foreign Aid on Economic Freedom

| | <u>Aid</u> | <u>ExCom</u> | <u>GNI per capita</u> | <u>R-squared</u> |
|--|------------------------------|------------------------------|--|------------------|
| 1. Aid as a % of GNI, 5-year (N = 476) | -0.031*** (-4.924) | -0.760*** (-3.777) | $1.059 \times 10^{-5}***$ (8.342) | 0.366 |
| 2. Aid as a % of GNI, 10-year (N = 232) | -0.025*** (-2.802) | -0.264 (-0.938) | $1.037 \times 10^{-4}***$ (5.597) | 0.390 |
| 3. Aid as a % of Government Expenditure, 5- year (N = 373) | -0.007*** (-4.811) | -0.740*** (-3.549) | $9.308 \times 10^{-5}***$ (7.100) | 0.394 |
| 4. Aid as a % of Government Expenditure, 10-year (N = 173) | -0.010*** (-4.113) | -0.299 (-0.933) | $8.358 \times 10^{-5}***$ (4.140) | 0.424 |

Fixed year effects added for each regression.

T-statistics in parenthesis. *, **, and *** denote significance at the .10, .05, and .01 levels, separately.
Significant coefficients in bold.

We use the same variables and format as used in regressions 1-4. Table 2 contains the results.

Here our results are mixed. The coefficient of aid is never significant at the 99-percent level, and in only one is it significant at the 90-percent level. In that case (regression 6) the coefficient is small but positive, indicating that increases in the size of an aid flow over a 10-year period increase economic freedom. The dummy variable for former communist countries was positive indicating that they were increasing economic freedom faster than other countries. This is unsurprising since they were transforming towards capitalist economies. National income per capita failed to be significant.

In measuring the impact of aid flows on changes in freedom, it is difficult to say that aid has much of a positive or negative effect on freedom. This could be because prior aid flows were similar to those in the period observed. If aid does adversely impact economic freedom, we may be observing countries where previous aid has already decreased freedom such that the current, near-constant aid levels cause freedom scores to remain poor, but not change significantly.

To address this, we next looked at how changes in aid flows impact changes in freedom. Any one pair of aid and economic freedom figures spans ten years. As an example, the change in the average amount of aid from the span 1970-1975 to the span 1975-1980 was paired with the change in freedom from 1975 to 1980. This model allows previous aid to be incorporated into the initial freedom score so that we can see how the change in aid flow affects economic freedom over the next five-year period. Our regression model is:

$$\Delta\text{Freedom}_{it} = \alpha + \beta_1[\Delta\text{Aid}_{it}] + \beta_2\text{ExCom}_{it} + \beta_3[\Delta\text{GNIperCap}_{it}] + \varepsilon_{it}$$

Table 2. Regression Results for the Effects of Foreign Aid on changes in Economic Education

| | <u>Aid</u> | <u>ExCom</u> | <u>GNI per capita</u> | <u>R-squared</u> |
|--|--------------------------------|-----------------------------------|---------------------------------------|------------------|
| 5. Aid as a % of GNI, 5-year (N = 395) | 0.008 (1.639) | 0.726*** (4.327) | -8.398 x 10 ⁻⁷ (-0.088) | 0.185 |
| 6. Aid as a % of GNI, 10-year (N = 182) | 0.018 (1.853) | 0.942** (2.345) | 6.051 x 10 ⁻⁷ (0.034) | 0.254 |
| 7. Aid as a % of Government Expenditure, 5-year (N= 329) | -0.001 (-0.705) | 0.746*** (4.245) | -1.872 x 10 ⁻⁶ (-0.183) | 0.190 |
| 8. Aid as a % of Government Expenditure, 10-year (N = 139) | -0.002 | 0.812* | -3.101 x 10 ⁻⁶ | 0.229 |

Fixed year effects added for each regression.

T-statistics in parenthesis. *, **, and *** denote significance at the .10, .05, and .01 levels, respectively.
Significant coefficients in bold.

Again, the same fixed effects and other independent variables were used as in previous regressions. We were only able to observe 5-year changes because 10 years of data were required to examine each 5-year change. Regressions matching the longer periods tested in regressions 2, 4, 6, and 8 were not undertaken because they require 20 years of data, and the number of observations for which this was possible was too limited. Table 3 reports our results.

In both regressions, aid had a negative sign, indicating that increases in aid flows from one period to the next decreased freedom scores over that time. However, aid failed to be statistically significant in any of the regressions. Our highest level of confidence attained in these two regressions was from regression 10, at 80.8 percent for the aid term. The coefficient on communist countries was again positive and significant, indicating that their freedom improved more rapidly than other countries. Income per capita again failed to be significant.

Overall, our regression results are mixed, but on balance tend to support Bauer's claim that aid promotes statism. We find that countries receiving aid are less economically free than those that do not. This could be a confirmation of Bauer's claim that aid harms economic freedom, or it could simply be an indication that countries with less freedom are more likely to get aid. Our strongest regression results find that countries that receive larger amounts of aid over a five year period, even after controlling for their level of income, have a lower freedom score at the conclusion of that period. When we compare the level of aid a country receives to how its freedom changes over five years, we find a very slight positive relationship in some cases. But this could be because the country already had a low level of economic freedom since it was receiving large amounts of aid, and that a constant, high aid flow does not cause economic freedom to continue to worsen. Examining changes in aid flows and freedom scores eliminates some of the above problem. We find that increases in aid negatively impact changes in economic freedom, but the results are not statistically significant.

Table 3. Regression Results for the Effects of Changes in Foreign Aid on Changes in Economic Freedom

| | <u>Aid</u> | <u>ExCom</u> | <u>GNI per capita</u> | <u>R-squared</u> |
|--|---------------------|-----------------------------------|-----------------------------------|------------------|
| 9. Aid as a % of GNI, 5-year (N = 380) | (0.010) (-1.004) | 0.900*** (4.443) | 1.636×10^{-5} (0.575) | 0.175 |
| 10. Aid as a % of Government Expenditure, 5-year (N = 274) | -0.002 (-1.309) | 1.029*** (4.494) | 5.112×10^{-5} (1.598) | 0.171 |

Fixed year effects added for each regression.

T-statistics in parenthesis. *, **, and *** denote significance at the .10, .05, and .01 levels, respectively.

Significant coefficients in bold.

This section is neither a resounding confirmation nor rejection of Bauer's claims. The one clear result that emerges is that aid is unlikely to increase economic freedom. There is some indication that aid actively harms freedom but the result is not perfectly clear.

Is Good Policy Rewarded with Aid?

The economics literature and aid agencies have recognized that an environment of economic freedom and property rights is necessary for economic development. Research by Burnside and Dollar (2000) claims that although aid in general cannot promote growth; if given to countries with the right policy environment, the aid can be effective. Their research is disputed, however. Easterly, Levine and Roodman (2003) and Brumm (2003) find that aid has a negative impact even with good policy, while other research—Hansen and Tarp (2000), Dalgaard and Hansen (2001), and Guillaumont and Chauvet (2001)—also casts doubts on the Burnside and Dollar results.

Despite debate, many in the policy world believe aid can work if the right policies are in place. The World Bank has written, "There is no value in providing large amounts of money to a country with poor policies" (1998, 13). Similarly, the millennium challenge account has been set up to direct U.S. foreign aid to countries with better policies in the hope that aid will be more effective. Thus, since good policy is necessary for economic growth, and at least some researchers believe aid can be effective if a country has good policies in place, the question that we address in this section is, "Have increases in economic freedom been rewarded with increased aid?" Vasquez (1998) found the opposite, that the greater the reductions in economic freedom, the greater the increases in aid. Vasquez only looked at 20 countries from 1985 to 1990, however, and 24 countries from 1990 to 1995. Our study expands on his by including data for 96 countries over thirty years to see if his

result can be generalized.¹²

We used a model similar to one in section 2 to determine if improvements in freedom were rewarded with increases in aid. In this case, since freedom is the independent variable and aid flows are dependent, we simply used aid flows instead of adjusting the figure to reflect aid as a percent of income or expenditure. We are only concerned with whether policy changes that increase freedom are rewarded with more aid. Since freedom scores are available at five-year intervals, aid flows were again averaged over the same five-year periods. Thus, we now compare the change in freedom over a five-year period with the change in aid from that period to the subsequent five-year period. For example, the difference in freedom scores from 1980 to 1985 becomes the independent variable (Δ Freedom), and the difference in aid from 1981-1985 to 1986-1990 becomes the dependent variable (Δ Aid).¹³

Our regression model is:

$$\Delta\text{Aid}_{it'} = \alpha + \beta_1(\Delta\text{Freedom})_{it} + \beta_2\text{GNIperCap}_{it} + \varepsilon_{it}$$

with the subscript t referring to the last year of the summed aid flows. The subscripted t' is the last year of the freedom scores, which lags 5 years behind that of the aid flows. We again control for income per

¹² Alesina and Weder (2002) is again related. They examine corruption instead of economic freedom and find no significant correlation between the level of corruption in a country and the amount of aid they receive.

¹³ This is not simply the inverse of the regressions in the prior section because we are now matching aid flows to prior freedom scores where before we were matching freedom scores to prior aid flows.

capita. Table 4 contains our results.

We found that the coefficient of freedom was negative and statistically significant. A one-point rise in freedom will lower subsequent aid flows by \$240 million. Increases in economic freedom—the addition of proper policies and implementation of sound institutions—were not rewarded with more foreign aid. In fact, steps in the right direction were punished by decreases in foreign aid. This occurred even though discussion of property rights and economic freedom in development agencies increased over the time period considered. When we examined the last period with complete data available in isolation, the 1990s, improvements in economic freedom continued to be punished with lower levels of aid; the results were not statistically significant, however.

The debate that has ensued since the publication of Burnside and Dollar (2000) has led to doubts that foreign aid can promote development even if it goes to countries with good policies. However, even if Burnside and Dollar are right, we find that aid agencies have not rewarded good policy with increased aid. They punish improvements in economic freedom by decreasing aid.

Conclusion

Although many articles examine whether aid promotes development and whether economic freedom promotes development, little empirical research has been written on the relationship between foreign aid and economic freedom. We examined both how aid influences economic freedom and if increasing economic freedom has been rewarded with aid.

No clear-cut theoretical case proves that aid either increases or decreases freedom. It could be that governments in impoverished countries receiving more aid will not need to tax their own citizens as much to obtain a given level of spending. If governments held spending constant, then aid could conceivably increase economic freedom.

Table 4. Regression Results for the changes in Economic Freedom on Foreign Aid Flows

| | <u>Change in Freedom</u> | <u>GNI per Capita</u> | <u>R-squared</u> |
|---|--|--------------------------------------|------------------|
| 11. Freedom & GNI per capita on Total Aid Flows (N = 284) | -2.442 x 10 ^{8**} (-2.296) | -3.204 x 10 ⁴ (-1.527) | 0.029 |
| 12. Freedom & GNI per capita on Total Flows (90s) | -1.129 x 10 ⁸ | 2.477 x 10 ⁴ | 0.012 |

T-statistics in parenthesis.

*, **, and *** denote significance at the .10, .05 and .01 levels, respectively.

Significance coefficients in bold.

Alternatively, as P.T. Bauer has argued, aid could lead to the expansion of the public sector relative to the private sector and thus decrease economic freedom. Our paper examined this question, with mixed results. Our regressions give some indication that aid decreases economic freedom. Our findings clearly can cast serious doubt on the proposition that aid increases freedom in poor countries. Given the World Bank's mission of promoting economic growth in poor countries and the strong empirical literature on the importance of economic freedom for growth, our paper indicates that since aid cannot be shown to have a positive influence on freedom, aid is unlikely to lead to development in poor countries.

The second question we addressed is whether improvements in economic freedom were rewarded with increased aid. While there has been debate as to aid's effectiveness if a country has good policy, we find that good policy has not been rewarded. Increases in economic freedom have been punished by decreases in the amount of aid a country receives.

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